



Department of Natural Resources and Conservation Water Right Information System Summary
Prepared for Water Policy Interim Committee
December 11, 2019

The Water Rights Information System (WRIS) (aka “the database”) is a critical computer system that is used primarily by the Department of Natural Resources and Conservation (DNRC or department), the Montana Water Court within the Judicial Branch, and the public as the authoritative source of digital information concerning water rights records across the State of Montana. The WRIS is currently being supported by technology that was developed in the late 1990s and deployed at DNRC in the early 2000s. This technology is nearing its end of life from the vendor and the costs of using this technology is increasing every fiscal year. Additionally, the current technology locks the department into a single vendor requiring it to pay whatever the vendor charges for its continued services. The new system DNRC is moving towards under the system sustainability project is open and will not be linked to a single vendor allowing DNRC to modify its technology stack as needed to help control the costs of hosting this application.

In order to support the legislatively mandated water rights record keeping system, DNRC needs to upgrade the WRIS to a newer technology that will meet current and future business process/requirements, allow DNRC to move forward with its strategic information technology goals with the WRIS and to ensure that the WRIS lifecycle is good for at least another 8 years.

In 2016 the department engaged with a vendor to assess the current WRIS. This assessment included on-site business process analysis with WRIS stakeholders to define business processes and requirements, analysis of the current WRIS technology stack, research of potential technical solutions that fit the DNRC Office of Information Technology (OIT) strategic plan, and the consideration and cost estimation of potential different solutions.

The technology that was recommended and the cost estimate provided broke the project up into the following phases.

Phase 0 – Technology Proof of Concept

Phase 1 – Business Rules Inventory and Documentation. This involves performing a business rules analysis of existing code. The deliverable is a complete inventory – including detailed documentation – of all existing business rules.

This documentation will serve as a foundation for creating development and quality assurance plans to make sure that any new functionality matches the rules in existing functionality. Also, this documentation, if it is kept up to date, is a significant asset for onboarding any new technical staff in the future.

Phase 2 – Migrate Oracle Reports to Microsoft SQL Server Reporting Services.

Phase 3 – Implement Public-Facing Web Infrastructure and Forms Submission.

Phase 4 – Migrate Oracle Forms.

Phase 5 – Implement Microsoft SQL Server Analysis Services for Ad-Hoc Reporting.

WATER POLICY INTERIM
COMMITTEE 2019-20

January 6, 2020

Exhibit 17



Department of Natural Resources and Conservation Water Right Information System Summary
Prepared for Water Policy Interim Committee
December 11, 2019

The department engaged with the vendor in June 2017 on the Technology Proof of Concept (Phase 0). The proof of concept was successful; the technology that was recommended by the vendor was proven to work for purposes of the department's business requirements. Based on the outcome of Phase 0, the department engaged with the vendor on Phase I of the project in January 2018. This Phase was completed in July 2019. Phase II was initiated at the completion of Phase I after the legislature has approved the funding for continuation of this project through HB10 (2019). Phase II is currently scheduled to be completed February 2020 at which time, the department and the vendor will proceed with the next phase of the project.¹ The project is currently on time and on budget. Please see the following internal monthly detailed status report as an example of the work that is being done.

¹ Please note that while implementation of public-facing infrastructure and forms submission is listed as Phase 3, it will not be engaged until after the migration of oracle forms (Phase 4).



Department of Natural Resources and Conservation Geocoding/Ownership Update Information
Prepared for Water Policy Interim Committee
December 11, 2019

Ownership Update Fee Information

Total Ownership Update fees collected 2014-2019: **\$2,850,059**

Average fee per ownership update is \$62.25 (2.25 water rights per ownership update)

Average number of updates processed annually 2016-2018: 10,731

Total annual fees expected annually 2016-2018: \$668,005

Total average number of updates not processed annually due to lack of payment 2016-2018: 1704

Total average amount of fees collected and billed annually 2016-2018: **\$774,079**

*This is the current cost to perform all ownership updates. This number is still increasing; therefore, higher allotments would likely be required in the future.

Fee Letter for Ownership Updates

Total number of fee letters sent to date that were paid and processed: **29,874**

*These are ownership updates that were likely missed by buyers, sellers, and any professionals assisting in the transfer of the real property. These updates likely would not have occurred without a fee letter.

Total number of corrections completed on updates based with fee letters: 1,512 (5%) which means **95% were accurate**

Fee letter billed 2014-2018: \$1,476,228

Fee letter payment 2014-2018: \$1,078,010 (73%) which means 27% will remain with outdated ownership records

Ownership Update Processing Timelines

Correct and complete ownership updates are processed at the end of every month in batch or offices may process them individually throughout the month as needed.

DOR based update with NO fee letter sent—average processing timeline is 38 days from receipt

DOR based update with a fee letter sent—average processing timeline is 18 days from the date the fee was paid

Average timeline between fee letter sent and payment received: 30 days

Average from time of correct and complete form receipt to processing date: 15 days

Overall average from time of correct and complete entry to processing for ALL updates: **28 days**

*Note that these timelines have had outliers removed prior to calculation. It is not uncommon for ownership update fees to be paid long after the update occurred and those were removed when calculating as they represent a minority.

Department of Revenue Involvement

DNRC and DOR have a good process for exchanging data. There is potential room for improvement regarding data exchange but, generally speaking, all data is exchanged in a timely manner. No other agency in the state has access to all property transfer data, therefore, the process simply would not work without cooperation from DOR. Without this exchange, DNRC would be relegated to using paper update forms just like the pre-HB39 process which will result in more outdated ownership records.

Recent Ownership Update Statistics:

DNRC batch processed 704 ownership updates which included 1,376 water rights for the month of November.

Billings:	96	Glasgow:	78	Helena:	96	Lewistown:	2
Bozeman:	22	Havre:	9	Kalispell:	258	Missoula:	143

DNRC batch processed 870 ownership updates which included 1,482 water rights for the month of October.

Billings:	74	Glasgow:	53	Helena:	232	Lewistown:	19
Bozeman:	44	Havre:	23	Kalispell:	293	Missoula:	132

Please see documents submitted to the committee in September and November for additional ownership update, geocoding, and correction information.